



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,363	12/31/2003	Krishna Bharat	Google-44 (GP-096-00-US)	4908
82402	7590	04/01/2009	EXAMINER	
Straub & Pokotylo 788 Shrewsbury Avenue Tinton Falls, NJ 07724			AUGUSTIN, EVENS J	
			ART UNIT	PAPER NUMBER
			3621	
			MAIL DATE	DELIVERY MODE
			04/01/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/750,363	<b>Applicant(s)</b> BHARAT ET AL.	
	<b>Examiner</b> EVENS J. AUGUSTIN	<b>Art Unit</b> 3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-33,35 and 37-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5-33, 35 and 37-66 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Acknowledgements***

1. In view of the appeal filed on December 17th, 2008, PROSECUTION IS HEREBY REOPENED. A new ground of rejection set forth below. Claims 1, 3, 5-33, 35 and 37-66 are pending and have been examined.

### ***Claim Rejections - 35 USC §101***

1. 35 U.S.C. §101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1, 3, 5-26 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter.
  3. Based on Supreme Court precedent<sup>1</sup> and recent Federal Circuit decisions, § 101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing.<sup>2</sup> If neither of these requirements is met by the claim(s), the method is not a patent eligible process under 35 U.S.C. § 101.
2. In this particular case, independent claim 1 is not tied to any particular apparatus. Even though independent claims 7, 14 and 20 say "computer implement" in the preambles, nothing

---

<sup>1</sup> *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

<sup>2</sup> The Supreme Court recognized that this test is not necessarily fixed or permanent and may evolve with technological advances. *Gottschalk v. Benson*, 409 U.S. 63, 71 (1972).

in the bodies of the claims tie them to apparatus. Therefore, those methods are not patent eligible processes under 35 U.S.C. § 101.

### ***Specification Objections***

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Specifically, the claims contain the aspect of "controlling the serving of an advertisement to the user using the determined user profile information". The USPTO was not able to find support for these claim languages in the specification. The rules of the PTO require that application claims must "conform to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description." 37 CFR 1.75(d)(1). Correction is required.

### ***Claim Rejections - 35 USC § 112 – 1<sup>st</sup> Paragraph***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 7, 14, 33, 39 and 46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter, which was not

Art Unit: 3621

described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Specifically, the claims contain the aspect of "controlling the serving of an advertisement to the user using the determined user profile information". The USPTO was not able to find support for these claim languages in the specification and are therefore considered new matter. All claims that depend on these independent claims are rejected as well. Correction is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 3, 5-33, 35 and 37-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herz et al. (U.S 5,754,939) ("Herz"), in view of Rose et al. (U.S 5724567) ("Rose").
7. As per claims 1, 3, 5-33, 35 and 37-66, Herz et al. discloses a computer system for evaluating customer and document/object profiles to automatically generate "target profiles" that most likely will interest the user. The computer system comprises apparatus with means (column 28, lines 43-67, columns 29, 30, figures 1 and 2) to do the following:
- A. Obtaining user profile attributes such as age and zip code (physical location) (column 4, lines 54-55). The system also stores profiles of documents which enables a user to access target objects of relevance and interest to the user without requiring the user to expend an

excessive amount of time and energy (column 4, lines 35-42) – User profiles determined from past searches submitted by user (column 4, lines 58-61)– ("determining initial user profile information for the user using information included in past search queries submitted to a search engine by the user, wherein such information is independent of documents returned as search results to the past search queries;" )

- B. Getting a summary of digital profiles of target objects that user likes or dislike (column 4, lines 56-58). The system can also infer the user/document interest (profile) from the user's behavior (column 17, lines 33-35). For example, the system might monitor which documents the user chooses to read, or not to read, and how much time the user spends reading them (column 17, lines 35-38) - ("inferring user profile information for the user;" ) ; ("determining the user profile information for the user using both the initial user profile information and the inferred user profile information")
- C. Getting user profiles determined from past searches submitted by user (column 4, lines 58-61) – ("the act of determining an initial user profile information for the user further uses past 4 document selections by the user")
- D. Attributes having values (column 10, lines 8-9, line 52, column 12, line 58) and scores (column 12, lines 60-67, column 13, lines 1-9). The score represents the frequency in which a particular attributes appears in a document. Thus, the score represents the likelihood of particular attribute being correct – ("the initial user profile includes a plurality of attributes, each of the plurality of attributes having a value and a score")
- E. A node being examined as a device that is connected, as part of a computer network and the way data is stored in those devices so that it can be used efficiently. The edges are

Art Unit: 3621

being examined as a set of connections or links between objects or nodes. In figures 1 and 2, these devices consist of information servers (figure 1 items I1 and In), vendor servers (figure 1, items V1 and Vn) and user devices (figure 2, items T1-Tn). These nodes and links are further represented in figures 3 and 4. The information servers contain the target documents (column 26, line 37, column 29, line 1-5) being requested and accessed by the user (column 28, 66-67, column 29, lines 1-5). The system can link users to documents based on users' interest to the documents or other documents associated with each link (column 60, lines 62-64) – *Claims 7, 20, 39, 52*

- F. The system can relate a user with past searches words such past interest in films whose review text (attribute h) contains words like "chase," "explosion," "explosions," "hero," "gripping," and "superb" (column 10, lines 37-42). The system can also record **associations** between documents (movies) and **users** column 10, lines 43-46). A good indication that the user wants to rent a particular movie is that the user has previously rented other movies with similar attribute values. For example, if the user has often liked movies that customer 1 and customer 2 have rented, then the user may like other such movies. Since the system can system relationships between users and documents one skilled in the art could easily infer from these relationships to create graphs (column 10, lines 46-53). With regard to the aspect of “(adding edges between nodes, if there is an association between the nodes to define a graph,)” can be interpreted as equivalent to “not adding edges between nodes, if there is no association. Therefore, that limitation does not have to happen, and can be interpreted as such –

- G. Mapping/graphing a user target profile interest summary indicative of said user's access patterns to target objects and sets of target object characteristics to said user pseudonym (C79, L8-10) -- ("inferring user profile information for the user using a topology of the graph and user")
  - H. ("an edge is added between first and second nodes if a document corresponding to the first node was returned in a search results page to a search query from the user corresponding to the second node."), can be interpreted as equivalent to "not adding edge between ..., if there is no document corresponding.... Therefore, that limitation does not have to happen, and can be interpreted as such
  - I. Attributes are multiplies by a weight, a weighted attributes are added together (column 18, lines 63-67, column 19, lines 1-7) –
  - J. The system gathers documents with similar profiles, based on their content. In this case, the system gets information about intrinsic properties of users and/or documents (column 23, lines 55-65) –
  - K. System using document meta data (column 11, lines 4-15)
8. Herz et al. does not explicitly describe an invention with a node that represents document or users.
9. However, Rose et al. describes an invention that is directed to information access in multiuser computer systems, and more particularly to a computer-based information system that enables users to access information from a wide variety of sources. According to Rose et al., each term, e.g. each word, in a document can be assigned a weight, based on its statistical



importance. Thus, for example, words which frequently occur in a particular language are given a low weight value, while those which are rarely used have a high weight value. The weight value for each term is multiplied by the number of times that term occurs in the document. Referring to FIG. 5A, the results of this procedure is a vector of weights, which represents the content of the document (Col. 6, Line 9-17). "Each user profile also comprises a vector, based upon the user's indications as to his relative interest in previously retrieved documents. Each time a user provides a new response to a retrieved message, the profile vector is modified in accordance with the results of the indication. For example, if the user indicates interest in a document, all of the significant terms in that document can be given increased weight in the user's profile "(col. 6, lines 28-35). "A score of the document's relevance can be indicated by the cosine of the angle between that document's vector and the user's profile vector. A document having a vector which is close to that of the user's profile, such as Document 4, will be highly ranked, whereas those which are significantly different will have a lower ranking, for example Document 1" (col. 6, lines 55-60, Fig. 5B).

10. The edges appear to be the actual association line between users and documents (see Fig. 10, item 1074). As such, the table in figure 6 of Rose shows on the Y axis the different documents and the X axis the different users associated with these documents. Therefore, once these relationships are established it would have been obvious for one skilled art at the time of applicant's invention to draw lines or edges between the documents that are associated with particular users.

Art Unit: 3621

11. Therefore, it would have been obvious for one skilled in the art to have a system that have graphical representation of users and/or document. The motivation for one skilled to use graph would be to establish relationships between the user and/or document.

***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to EVENS J. AUGUSTIN whose telephone number is 571-272-6860. The examiner can normally be reached on 10am - 6pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Fischer can be reached on (571)272-6779.

/Evens J. Augustin/  
Evens J. Augustin  
April 1, 2009  
Art Unit 3621